

What is claimed is:

1. A heat trap assembly for a hot water tank comprising:  
a housing having a fluid inlet and a fluid outlet; and  
a sealing member disposed in said housing, wherein the sealing member includes  
5 a tail portion and a portion that is dimensioned to at least substantially cover the inlet of  
said housing to prevent loss of heat through the fluid inlet when no fluid is running  
through the inlet and allow fluid to pass around the sealing member when fluid is  
flowing through the outlet.
- 10 2. The assembly of claim 1, wherein said sealing member includes a substantially  
spherical portion attached to the tail portion, the spherical portion dimensioned to at  
least substantially cover the inlet of said housing to prevent loss of heat through the fluid  
inlet when no fluid is running through the inlet and allow fluid to pass around the sealing  
member when fluid is flowing through the outlet.
- 15 3. The assembly of claim 2, wherein the tail portion is aligned with a central axis of  
the spherical portion.
4. The assembly of claim 1, wherein the sealing member includes a post disposed  
20 substantially opposite the tail portion.
5. The assembly of claim 4, wherein the post is positioned slightly off center of a  
central axis of the tail portion.
- 25 6. The assembly of claim 1, further comprising a nipple adapted to attach to an  
associated inlet or outlet pipe of a hot water tank, wherein the housing is disposed in said  
nipple.
- 30 7. A heat trap assembly for a hot water tank comprising:  
a cage having an opening that defines a fluid outlet;  
a seat opposite to said opening that defines the fluid outlet, said seat including an  
opening that defines a fluid inlet; and  
a sealing member including a post, said sealing member trapped between the  
opening that defines the fluid outlet and the opening that defines the fluid inlet.

8. The assembly of claim 7, wherein the cage includes a rib that interrupts the opening that defines the fluid outlet.
- 5 9. The assembly of claim 8, wherein the post is adapted to engage the rib when fluid is flowing through the fluid outlet.
10. The assembly of claim 8, wherein the rib includes a curved surface.
- 10 11. The assembly of claim 7, wherein the seat includes a beveled edge adjacent the opening that defines the fluid inlet and said sealing member includes a spherical portion dimensioned to seat against the beveled edge to prevent heat loss through the opening that defines the fluid inlet.
- 15 12. The assembly of claim 7, wherein the sealing member includes a tail portion.
13. The assembly of claim 12, wherein the post is positioned off center of an axis running through the tail portion.
- 20 14. The assembly of claim 7, wherein said cage includes a trapping member that traps said sealing member inside the assembly when fluid is flowing through the assembly, and wherein at least a portion of the tail portion of the sealing member remains disposed inside the opening that defines the fluid inlet when said sealing member contacts the trapping member.
- 25 15. A heat trap assembly for a hot water tank including;  
a housing having a fluid inlet and a fluid outlet;  
a sealing member disposed in said housing and including a first portion that is adapted to restrict rotational movement of said sealing member in at least one of two  
30 perpendicular axes and a second portion that is adapted to restrict rotational movement in a third axis perpendicular to both of the at least two perpendicular axes.

16. The heat trap assembly of claim 15, wherein the first portion of said sealing member is adapted to restrict rotational movement in each of the at least two perpendicular axes.
- 5 17. The heat trap assembly of claim 15, wherein said sealing member includes a substantially spherical portion and the first portion extends from the substantially spherical portion in a tail-like configuration.
- 10 18. The heat trap assembly of claim 15, wherein said sealing member includes a substantially spherical portion and the second portion comprises a post extending from the substantially spherical portion.
- 15 19. The heat trap assembly of claim 18, further comprising a cage positioned in said housing, wherein the post engages a portion of the cage when fluid is running through the assembly.
20. The heat trap assembly of claim 15, further comprising a nipple adapted to attach to an associated hot water tank, wherein said housing is received in said nipple.